



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,410	07/30/2001	William J. Benton	3259.00016	4598

28318 7590 09/16/2004

BANNER & WITCOFF LTD.,
ATTORNEYS FOR CABOT CORP.
28 STATE STREET - 28TH FLOOR
BOSTON, MA 02109

EXAMINER

TUCKER, PHILIP C

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/918,410	Applicant(s) BENTON ET AL.
	Examiner Philip C Tucker	Art Unit 1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 15-27, 32, 33, 37, 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 14, 28-31, 34, 36 and 38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The amendment filed 6/24/04 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: All of the polymers disclosed in the WO reference, which were not originally disclosed in the current specification. One cannot incorporate essential subject matter by reference to other than a US patent (see MPEP 608.01 (p)). The incorporation of the polymers thus adds new matter to the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 14, 29-31 and 34 are rejected under 35 U.S.C. 112, first paragraph, because the specification as originally filed, while being enabling for alpha, beta unsaturated carboxylic acid compounds, does not reasonably provide enablement for alpha, beta unsaturated carbonyl compounds. The specification as originally filed does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. Applicants claiming of alpha, beta unsaturated carbonyl compounds is far

greater in scope than the alpha, beta unsaturated carboxylic acid compounds which are taught in applicants specification. Such carbonyl compounds would include ketones, aldehydes, acrylamides, etc. which are not taught or contemplated by applicants specification, and the possible scope would be infinite. The prior art is also not replete with such use of the present polymers comprising the alpha, beta unsaturated carbonyl compounds in the compositions taught herein, so as to instantly envisage such polymers to one of ordinary skill in the art. One of ordinary skill in the art would require undue experimentation to determine which of such carbonyl compounds would be useful in the present invention, and to determine how to make and use the polymers formed by such carbonyl compounds..

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 28-30, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US 4599390).

Fan teaches a water soluble polymer, which can comprise Amps, acrylamide, carboxylic acid and a hydrophobic acrylate or methacrylate monomer (see claims 2, 5 and 6). The carboxylic acid (acrylic acid exemplified, see claim 8) or acrylamide satisfies an alpha,beta unsaturated carbonyl compound as claimed in the present claims. In claim 2, it teaches that A is hydrophobic, and in claim 6, when R8 is alkyl up to 12 carbon atoms, such is clearly a hydrophobic acrylate or methacrylate as taught herein. Fan differs from the present invention in that a specific example of the use of a hydrophobic acrylic or methacrylic ester is not disclosed. It would be obvious to one of ordinary skill in the art to make copolymers according to claim 2, 5, 6 and 8 of Fan, including those which comprise hydrophobic acrylic or methacrylic esters, given the teaching of Fan that such polymers are useful as flocculation agents.

Art Unit: 1712

5. Claims 1-13, 15-27, 32, 33, 35, 37, 39 and 40 are allowable over the art of record.

6. Applicants amendments and arguments are deemed partially persuasive.

Applicants arguments with respect to the issues under 35 USC 112, second paragraph are deemed persuasive, in view of applicants amendment and In re Kroekel.

With respect to the rejection under 35 USC 112, first paragraph, applicant has amended the specification to incorporate a teachings of a WO document. One cannot incorporate essential subject matter by reference to other than a US patent (see MPEP 608.01 (p)). As such the addition adds new matter to the specification, and must be removed.

Contrary to applicants arguments, Fan clearly teaches acrylate and methacrylate esters, such as in claim 6 when R8 is alkyl. Such is further defined a hydrophobic in claim 2. Although Fan does not teach that such hydrophobic groups are associative with one another in solutions of an alkali metal salt of a carboxylic acid, the courts have held that the discovery of a property in an obvious composition does not alone give rise to patentability (In re Dillon 16 USPQ2d 1897). The rejection is thus maintained.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Tucker whose telephone number is 571-272-1095. The examiner can normally be reached on Monday - Friday, Flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/918,410

Page 6

Art Unit: 1712

A handwritten signature in black ink, appearing to read 'Philip C. Tucker', with a stylized flourish extending from the end.

Philip C Tucker
Primary Examiner
Art Unit 1712

PCT-3117